

**Active and Inactive Workers
on the North Carolina Nurse Aide I Registry:
A Wage and Employment Profile**

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This report results from a series of studies commissioned by the North Carolina Department of Health and Human Services and conducted and compiled by the North Carolina Institute on Aging (NCIOA). Using three employment-related databases maintained by the state, the NC wage and employment histories, the NC Nurse Aide I Registry, and the NC Board of Nursing license files, information was compiled about individuals who are registered as nursing assistants (NAs) with the state of North Carolina. The authors wish to acknowledge the contributions of Betty McGrath of the NC Labor Market Information Division of the Employment Security Commission and Cheryl Thompson at the NCIOA in the preparation, management and analyses of these data.

Background

In more than three-quarters of U.S. states, state officials deem the recruitment and retention of the direct care workforce (a group of assistive healthcare workers which includes NAs, personal care workers and home health aides) to be a serious problem.¹ North Carolina is no exception. Turnover rates for NAs in residential care homes have consistently been estimated at over 100% for the past three years. Separation rates in home care and home health organizations are estimated between 40 and 50% over the same three year period.² In an effort to address this growing problem, the Office of Long Term Care of the NC Department of Health and Human Services has commissioned the NC Institute on Aging (NCIOA) to compile, examine, and analyze data on the NA workforce in long-term care (LTC) settings in NC. This report follows five successive reports reflecting the wage and employment patterns of active and inactive NAs. The report covers four years--2001-2004--and retrospectively applies the methodology developed for the 2005 report.

The specific objectives of this study were to:

- (1) Compare measures of wage and job stability for active (registered as a NA) and inactive (no longer registered as a NA) registrants across four years (2001, 2002, 2003, 2004);*
- (2) Estimate the extent to which active and inactive NAs in North Carolina are employed in long term care and other healthcare sectors; and*
- (3) Examine the career wage trajectories for continuously registered NAs.*

Methodology

Data were collected from two of North Carolina's state-operated employment-related data sources. The NC Nurse Aide I Registry contains all individuals registered as a Nurse Aide I with the state of NC at any time since 1990. This registry is maintained in two separate databases: those registrants who are currently active and those who are currently inactive. For research purposes the files were merged and registrants on the file (February 2002, February 2003, and February, 2004, February 2005) were identified as either currently active or inactive. The second data set, compiled by the NC Employment Security Commission, is extracted from the Unemployment Insurance tax record and contains quarterly wage information on all workers and their wages paid by employers in NC. The NC Labor Market Information Division (NCLMI) linked these two data sources at the request of NCIOA and merged them to create a file with registrants' wages (as reported by employers) and regional characteristics available for analyses. Due to confidentiality issues, our partners at the NCLMI provide the data only in aggregated tables.

¹ Harmuth S & Dyson, S. "Results of the 2003 National Survey of State Initiatives on the Long-Term Care Direct-Care Workforce" Paraprofessional Institute and the NC Department of Health and Human Services' Office of Long-Term Care, March, 2004, Available at: www.directcareclearinghouse.org/download/2003_Nat_Survey_State_Initiatives.pdf

² Konrad TR, Morgan JC, & Dill JS. "Descriptive Results from the State Turnover Survey Conducted for the Office of Long Term Care, NC Department of Health and Human Services, 2005" North Carolina Institute on Aging, August, 2006, Chapel Hill, NC Available at: <http://www.aging.unc.edu/research/winastepup/reports/ShortTurnoverReport2005.pdf>

Starting in the 2005 report, this series of reports was enhanced with two methodological innovations. First, the wages are reported by individuals rather than by ‘jobs.’ This means that individuals who hold multiple jobs will not be counted more than once. Individuals were assigned to the industrial category within which they garnered fifty percent or more of their wages. If an individual did not receive at least fifty percent of their wages from within a single industrial classification category, their case was excluded from the industrial classification analyses. Second, using the NC Health Professions Data System³ individuals who have gone on to attain their licensed practical or registered nurse credentials were removed from the analysis. These innovations reduce the error inherent in comparisons between active and inactive files as many nursing programs require their students to be listed on the Nurse Aide I Registry even if they never work as an NA. Nurse aides who later went on to become nurses, either registered nurses (RNs) or licensed practical nurses (LPNs), were removed from the file the year in which they completed their credential and in subsequent years.

The wage data analyzed have been inflated to fourth quarter 2004 dollars using the Consumer Price Index for all urban consumers in the U.S. and are not seasonally adjusted. Also, outliers, individuals earning \$100,000 or more from an organization during a year, were excluded from all analyses. Despite some limitations, these data represent an improvement over the data used in previous reports and continue to be the best source for describing the wage and employment profile for this class of worker.

How do active registrants compare to inactive registrants over time?

Over the last four fiscal years (July 1, 2001-June 30, 2005) the number of newly registered, or newly ‘active,’ NAs still appears to be outpacing the number of NAs becoming inactive, but only slightly. The total number of active NAs has grown from June 30, 2002 (95,092) to June 30, 2005 (108,097), but the rate of growth has slowed down considerably. Over the past four years, the ratio of newly registered to newly inactive NAs has dropped, most notably over the last two years, and in 2005 the ratio was close to one to one. The rise in inactive aides may be related to a partial recovery in the unemployment rate in NC beginning in 2004 and continuing in 2005. Up until 2004, yearly unemployment rates had been rising nationwide from 4.7% in 2001 to 6.0% in 2003, and were higher yet in NC (6.5% in 2003).⁴ This lack of job recovery is likely to influence the wage and employment trends for this segment of the workforce.

Median real wages (adjusted to 4th quarter 2004 wages)⁵ and number of employers per individual generally continued to decrease over the last four years for both active and inactive registrants.

³ We used the NC Health Professions Data System housed at the Cecil G. Sheps Center for Health Services Research (University of North Carolina at Chapel Hill) with data derived from the North Carolina Board of Nursing, effective October 2004.

⁴ Source: Labor Market Information, The Employment Security Commission of North Carolina, <http://www.ncesc.com/> under “Labor Market Information.” Retrieved September 15, 2004.

⁵ Real wages represent the purchasing power of the “face” value of dollars in a given period. Price indexes are typically calculated relative to some base time period. Our base period is the final quarter of 1994, and real values are expressed in constant 4th Q 1994 dollars, referenced as 4th Q 1994=100, since the published index was normalized to equal 100 in the base year. To use the price index as a divisor for converting a nominal value into a real value, the published index is first divided by the base-year price-index value of 100. See: <http://en.wikipedia.org/wiki/Real_versus_nominal_value>

(See Table 1). This trend is consistent with a widespread pattern in recent years for all types of North Carolina jobs that require little skill or formal education, and fewer jobs may be available to the underemployed because of persistently high, yet declining, unemployment rates in the state. Despite the decline in real wages for both active and inactive registrants, the inactive group continues to do better, on average, with higher median wages and fewer jobs per individual than active group. This gap between the earnings of active and inactive registrants is proportionally similar to the active-inactive wage gap that was noted in last year's report and appears to be relatively consistent over time. (See Table 1).

Table 1: Comparing Median Real Wages and Average Number of Employers for Active and Inactive Nurse Aide Registrants, North Carolina (2001-2004)		
	ACTIVE =	INACTIVE
<i>Median Wages (80th percentile)</i>		
2001	\$15,470 (\$24683)	\$16,920 (\$27967)
2002	\$15,116 (\$24426)	\$17,050(\$28460)
2003	\$14,875 (\$24300)	\$16,832 (\$28715)
2004	\$14,912 (\$24489)	\$16,748 (\$28901)
<i>Average Annual Change in Median Wages</i>		
2001-2002	-2.3%	.8%
2002-2003	-1.6%	-1.3%
2003-2004	.2%	-.5%
<i>Average Number of Employers</i>		
2001	1.97	1.65
2002	1.88	1.57
2003	1.82	1.53
2004	1.83	1.55

Source: NC Labor Market Information Service and NC Nurse Aide I Registry.

Where are active and inactive NAs?

There appears to be remarkable stability in the proportions of registrants working in LTC and non-LTC settings over the last four years (See Table 2). About 10% of the inactive registrants work in LTC settings while 43% of active registrants do so. The 10% of inactive registrants who work in LTC settings likely reflect individuals who work in settings where registration renewal is not mandatory or may represent individuals who have mistakenly allowed their registration to lapse. Roughly one fifth of active registrants worked in non-LTC health care settings over the past four years, while only about 14% of inactive registrants are employed in non-LTC health care settings. The vast majority of inactive registrants can be found in non-health related jobs,

although their percentages are declining slightly from 2001 to 2004. This may reflect the growth of health care jobs over time. There is also some indication of an increase of both active and inactive registrants working in the wholesale and retail trade industries, and a slight increase in the percentage of active registrants who work for temp agencies.

Is career progression evident for NAs who are continuously registered?

The trends in median real wages for continuously registered NAs (i.e., registered on the nurse aide registry for the entire period from 1994 to 2004) are shown in Figure 1. Out of the more than 236,137 persons (excluding those concurrently licensed as LPNs or RNs) registered as NAs over the last decade, there were 23,764 individuals registered without interruption. This “core workforce” consists of individuals who have more or less made a career out of being a NA.

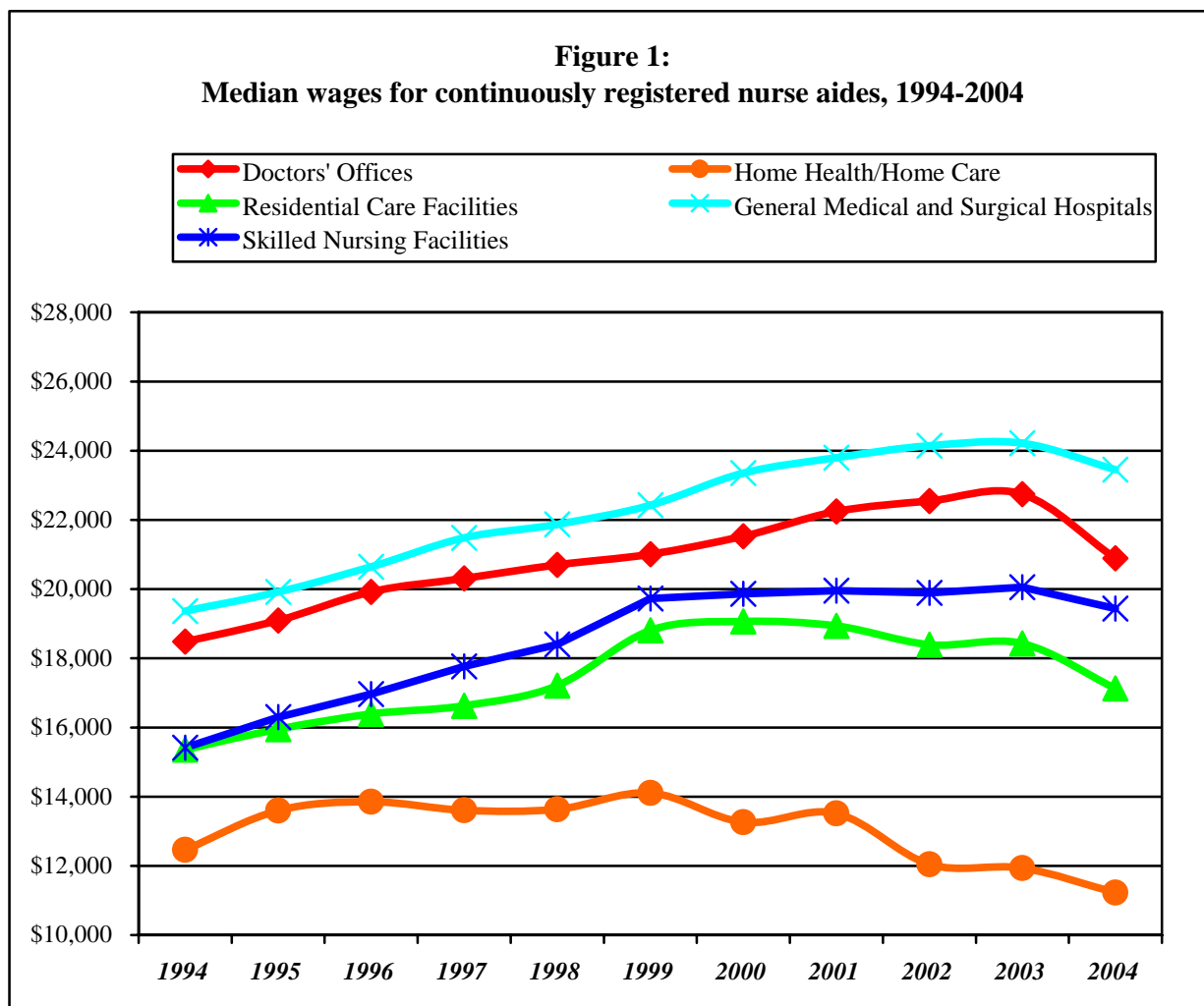
Continuously registered individuals working in non-LTC settings fare better, on average, than those in LTC settings. Within LTC settings, individuals in residential care homes and nursing homes appear to do significantly better than those in home care/home health settings, while the median real wages of workers in residential care homes appear to be falling relative to the wages of workers in skilled nursing facilities. Wages in home care/home health settings appear to be dropping significantly after a peak in 1999. Downward trends should not be interpreted as suggesting that employers are lowering the hourly wages paid. It may be that prevailing wages are not keeping pace with inflation or more workers are being hired on a part-time basis.

For continuously registered individuals in residential care and skilled nursing facilities, the general wage trend was positive, but modest, until 2000, after which it stagnates for workers in skilled nursing and declines for those in residential care homes. Median wages in all health-related settings dropped from 2003 to 2004. Downward trends in the median wage profile of continuously registered home care/home health workers are a cause for concern given projected increased service demand as the NC population ages.

These real wage declines are likely to reflect changes in the cost of living, rather than decreased wages offered by employers. National data suggest such increases are particularly relevant to low income workers like nurse aides. For example, the overall inflation rate has increased by 26 percent since September, 1997, with sharper increases in costs of necessities like healthcare (43%) and gas (134%). It is possible that median wage declines observed among nurse aides in North Carolina may be due to overall reductions in working hours

Table 2: Employment Settings of Active and Inactive Nurse Aide Registrants. North Carolina, 2001-2004								
Type of Employment	% Active				% Inactive			
Year	2001	2002	2003	2004	2001	2002	2003	2004
Total Number of Individuals	83,395	89,549	93,408	95,125	57,729	59,767	62,533	67,133
Pct in Skilled Nursing Facilities	22	21	21	20	3	3	3	3
Pct in Home Care/Home Health	11	12	12	13	2	2	2	3
Pct in Residential Care Facilities	9	10	10	10	4	4	5	4
<i>Pct in all LTC Industries</i>	42	43	43	43	9	9	10	10
Pct in Doctors' Offices	4	4	4	4	7	8	8	8
Pct in General Medical & Surgical Hospitals	17	17	16	16	6	6	6	6
<i>Pct in all Non-LTC Health Related Industries</i>	21	21	20	20	13	14	14	14
Pct in Wholesale & Retail Trade	8	9	9	10	21	21	22	22
Pct in Temporary Service Agencies	4	4	5	5	4	4	4	4
Pct in Other Industries	25	23	23	22	53	52	50	50
<i>Pct in Non-Health Related Industries</i>	37	36	37	37	78	77	76	76

Source: NC Labor Market Information Service and NC Nurse Aide I Registry. Industries are classified using the North American Industrial Classification System (NAICS) codes.



Source: NC Labor Market Information Division and NC Nurse Aide I Registry. Industries are classified using the North American Industrial Classification System (NAICS) codes. These real wage data reported have been inflated to fourth quarter 2004 dollars using the Consumer Price Index for all urban consumers in the U.S. and are not seasonally adjusted. It should not be inferred that downward trends suggest that employers are lowering hourly wages paid. Alternative interpretations might be that prevailing wages are not keeping pace with inflation or that more workers are being hired on a part-time basis.

Discussion

There is substantial need for improvement in the wage and employment situation of direct care workers. Overall, active registrants fare consistently worse than inactive registrants in both wages and number of jobs held per year. The average number of jobs per year is either an indicator of job instability or one of multiple jobs held simultaneously. Both are evidence of lower job quality among active registrants as compared to inactive registrants. The trend in proportional representation among industrial categories remains steady over the last four years. Actives tend to hold jobs in healthcare, specifically LTC, more often than inactive registrants. However, over a third of active registrants hold jobs outside of healthcare. The proportion of inactive registrants holding jobs outside of healthcare entirely is even more striking – over three quarters of these workers over the last four years.

The migration out of healthcare jobs by registrants may be related to the relatively flat (and in some cases declining) real wage trajectories of career NAs. These real wage trajectories of continuously registered NAs, in most healthcare industries, show very modest improvements over the last decade, and even appear to be deteriorating for workers in some industries since 2000, and for workers in every industry since 2003. With the exception of home health/home care and residential care homes, wages have outpaced inflation, but no sector shows more than a \$5000 increase over the last 10 years. Over the last four years, wage trajectories are relatively flat (and declining for home health/home care). This coincides with other indicators of economic well being including unemployment rates and cost of living changes. If the unemployment rate continues to decline, as it has over the last nine months, these trends may improve slightly, although the recent downturn in real wages has occurred at the same time that unemployment in North Carolina decreased from 6.4% to 5.5% in 2003-2004.

North Carolina's Response

In order to make any substantial changes in the wage and employment situation of these workers, workforce initiatives at the national, state and local levels aimed at improving job quality and career opportunities are required. Efforts that may impact the North Carolina direct care workforce directly are a) the previous Real Choice Systems Change Grant Initiative (2001-2005), b) the Better Jobs, Better Care Demonstration Grant Initiative and c) the WIN A STEP UP program (Workforce Improvement for Nursing Assistants: Supporting Training, Education, and Payment for Upgading Performance). These efforts are directed at both the individual LTC organization level and, more broadly, at the level of the state infrastructure. Through the Center for Medicare and Medicaid Services' Real Choice Systems Change Grant, North Carolina established a statewide association for direct care workers and developed a new job category, Medication Aide. A second job category, Geriatric Aide Specialist is still being refined. Through a Better Jobs, Better Care demonstration grant from The Robert Wood Johnson Foundation and The Atlantic Philanthropies, a special licensure program has been developed for voluntary participation by home care agencies, nursing facilities and adult care homes. This program, North Carolina New Organizational Vision Award (NC NOVA), is a voluntary special licensure program that focuses on creating and sustaining a supportive workplace environment. It was launched statewide in January, 2007. Finally, through a collaborative effort between the NC Department of Health and Human Services and the UNC Institute on Aging, the WIN A STEP UP program is available to skilled nursing facilities in North Carolina. This workforce improvement program aims to improve job quality, stability and performance of nursing assistants by providing training, education and rewards.